

Guest Editorial

Slips trips and falls have a major health and safety and economical burden on the workers. The U.S. Bureau of Labor Statistics of 2002 reports that slips trips and falls were the third leading cause of injury and falls were the fourth leading cause of fatal occupational injuries. The top three industries, which have most problems with slips and falls, are construction, agriculture and transportation. More than 20% of the non-fatal injuries are associated with loss of balance at the workplace including fall to the lower level, fall on the same level and slips trips without fall (personal communication Dr. Laurel Kincl, Labor Education and Research Center, University of Oregon). Since slips initiate a significant amount of falls as a first under-foot occurrence, it is reasonable to investigate various biomechanical and ergonomic factors associated with it. Furthermore, before a slip incident culminates into a fall the affected individual experiences postural instability. Keeping the aforementioned factors in mind, in recent years, there has been noticeable rise in studies dealing with underlying mechanisms of slips and its influence on postural stability. In this special issue, several articles are presented that address this matter further and investigate importance of various environmental and work factors influencing task performance on slippery surfaces and elevated/inclined surfaces. Some of the articles from this issue explore two risk factors of falls at workplace which so far has not received much attention i.e. the effect of prior knowledge of slippery surface on the mechanics of slipping event during walking and the effect of experience of working on inclined and elevated surface (such as roofers) on their postural stability. In addition, this special issue also has an article dealing with postural stability factors associated with construction related tasks which are known to cause severe cases of fall related injuries. The articles presented in this issue will support the fact that no one measure (such as coefficient of friction of a surface only) can completely capture the risk of slipping and falling when a worker is performing lifting or walking tasks on dry or slippery surface or elevated/inclined surfaces under various environmental exposure conditions. In summary, a better understanding of the multi-factorial nature of the risks associated with workplace slips and falls will stimulate development of future intervention/prevention programs.

I want to thank the authors of this special issue for their excellent contributions and making this effort a rewarding one.

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